Technology Center 1600 Serial No.:10/579,248 Confirmation No.: 7812 Filed: February 28, 2007

For: BIOTIN-FACILITATED TRANSPORT IN GRAM NEGATIVE BACTERIA

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the aboveidentified application:

- 1. (Currently Amended) A method for introducing a compound into a Gram negative bacterial cell, the method comprising contacting the cell, in the absence of a membrane-permeabilizing agent, with a biotinylated compound, wherein the compound comprises a peptide and wherein the contact is effective to deliver the compound into the cytosol of the cell.
- 2. (Canceled)
- 3. (Currently Amended) A method for introducing a compound into a Gram negative bacterial cell, the method comprising contacting the cell, in the absence of a membrane-permeabilizing agent, with a biotinylated compound, wherein the contact is effective to deliver the compound into the cytosol of the cell.
- 4. (Canceled)
- 5. (Currently Amended) A method for identifying a compound having antimicrobial activity comprising:

contacting a Gram negative bacterial cell, in the absence of a membrane-permeabilizing agent, with biotinylated compound to cause uptake of the biotinylated compound [[by]] into the cytosol of the cell;

determining whether the biotinylated compound has an antimicrobial effect on the cell.

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6. (Canceled)

- 7. (Previously Presented) The method of claims 3 or 5 wherein the compound comprises a peptide.
- 8. (Previously Presented) The method of any of claims 1, 3 or 5 further comprising linking a biotin moiety to the compound to yield the biotinylated compound.

9-20. (Canceled)

- 21. (Currently Amended) The method of claim 1 wherein the peptide or peptidomimetic is conjugated to first and second bioactive compounds, wherein the first bioactive compound comprises biotin.
- 22. (Previously Presented) The method of any of claims 1, 3 or 5 wherein the Gram negative bacterial cell is a cell of the genus *Escherichia*, *Salmonella*, or *Pseudomonas*.
- 23. (Previously Presented) The method of claim 22 wherein the Gram negative bacterial cell is an *E. coli* cell, a *S. typhimurium* cell, or a *P. aeruginosa* cell.
- 24. (Previously Presented) The method of any of claims 1, 3 or 5 wherein the Gram negative bacterial cell comprises a biotin transporter.
- 25. (Original) The method of claim 24 where the biotin transporter comprises a *birB/bioP* transporter.
- 26. (Original) The method of any of claims 1, 3 or 5 wherein the compound comprises a

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therapeutic, diagnostic or imaging agent.

27. (Previously Presented) The method of claim 26 wherein the compound further comprises a targeting moiety that specifically targets a Gram negative bacterial cell.

28. (Original) The method of claim 27 wherein the targeting moiety comprises a receptor ligand or an antibody or fragment thereof.

29. (Previously Presented) The method of claim 26 wherein the compound comprises an antibiotic.

30-31. (Cancelled)

32. (Previously Presented) The method of any of claims 1, 3 or 5 wherein the Gram negative bacterial cell is a pathogen.

33. (Previously Presented) The method of any of claims 1, 3 or 5 wherein the compound, when introduced into the cell, inhibits the growth of the cell.

34. (Previously Presented) The method of any of claims 1, 3 or 5 wherein the compound, when introduced into the cell, causes the death of the cell.

35. (Previously Presented) The method of any of claims 1, 3 or 5 performed in the absence of calcium chloride.

36-43. (Canceled)